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File: USPT

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DOCUMENT-IDENTIFIER: US 6537960 B1

TITLE: Surfactant blend for use in highly alkaline compositions

Brief Summary Text (16):

The materials are phase stable and have viscosities that make them readily usable in larger scale industrial and institutional applications. The compositions provide improved stability, improved wettability, and improved or enhanced soil removal properties because of high alkaline and surfactant contact.

Detailed Description Text (44):

The compositions of the present invention may be prepared according to any method known in the art. For instance, the nonionic surfactant(s) and alkyl polyglucoside may first be added to an aqueous base including a source of alkalinity, i.e. 50 wt-% active aqueous sodium hydroxide, thus forming an alkaline surfactant blend. The alkaline surfactant blend may then further be combined with water conditioning agent(s) to form an intermediate mixture. This mixture is then exposed to high shear. The other optional ingredients listed above may also be included in this intermediate mixture.

CLAIMS:

17. A method of preparing a low foaming highly alkaline detergent comprising the steps of: I. combining the surfactant blend of claim 1 in an aqueous base comprising up to about 50 wt-% active aqueous sodium hydroxide to form an alkaline surfactant blend; and II. mixing said surfactant blend.

18. A low foaming highly alkaline surfactant concentrate useful in detergent solutions, comprising: i) a surfactant blend, comprising: a) about 10 to about 50 wt-% of the blend of at least one alkyl polyglucoside; b) about 1 to about 15 wt-% of the blend of at least one amine oxide; c) about 3 to about 30 wt-% of the blend of at least one polycarboxylated alcohol alkoxylate; d) about 3 to about 6 wt-% of the blend of at least one alcohol alkoxylate; and ii) an aqueous solution of about 25% to about 50% active alkali metal hydroxide.